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OFFICIAL

Company: USPTO TC2800

From: Wendy W. Koba

Attention: Jeffrey N. Zahn

Pages including cover sheet: 8

Fax No.: 703-872-9318

Date: 10/7/03

Re: Serial No. 09/826,237

☒ Urgent ☐ Please review ☐ Please Comment ☐ Please Reply ☐ For your information

Case Name: Capasso 65-104-1-19-28-7-34-13

Serial Number: 09/826,237

Filing Date: April 4, 2001

Group Art Unit: 2828

Examiner: Jeffrey N. Zahn

Title: Technique for Measuring Intersubband Electroluminescence in a Quantum Cascade Laser

In response to a non-final office action dated July 14, 2003, attached please find the following documents:

1. Transmittal Form (1 page)
2. Certificate of Facsimile Transmission under 37 CFR 1.8 (1 page)
3. Claims as amended (1 page)
4. Amendment (4 pages)

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OCT 07 2003

Respectfully submitted,

*Wendy W. Koba*

Wendy W. Koba, Esq.

PTO/SB/21 (05-03)

Approved for use through 04/30/2003. OMB 0651-003

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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|   |                        |                        |
|---|------------------------|------------------------|
| <b>TRANSMITTAL FORM</b><br>(to be used for all correspondence after initial filing) | Application Number     | 09/826,237             |
|   | Filing Date            | April 4, 2001          |
|   | First Named Inventor   | Capasso                |
|   | Art Unit               | 2828                   |
|   | Examiner Name          | Jeffrey N. Zahn        |
| Total Number of Pages in This Submission  | Attorney Docket Number | 65-104-T-19-28-7-34-13 |

| ENCLOSURES (Check all that apply)  |  |  |
|--|--|--|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input checked="" type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input type="checkbox"/> Information Disclosure Statement<br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Response to Missing Parts/Incomplete Application<br><input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br><input type="checkbox"/> Change of Correspondence Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) _____ | <input type="checkbox"/> After Allowance communication to Group<br><input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):<br>1. FAX Cover Sheet<br>2. Cert. of transmission Under 37 CFR 1.8<br>3. Claims As Amended |
| Remarks _____  |  |  |
| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT   |  |  |
| Firm or Individual name  | Wendy W. Koba  |  |
| Signature  | Wendy W. Koba  |  |
| Date   | 10/7/03  |  |

| CERTIFICATE OF TRANSMISSION/MAILING   |               |              |
|---|---------------|--------------|
| I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below. |               |              |
| Typed or printed name   | Wendy W. Koba |              |
| Signature   | Wendy W. Koba | Date 10/7/03 |

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/97 (05-03)

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on 10/7/03  
Date

Wendy W. Koba  
Signature

Wendy W. Koba  
Typed or printed name of person signing Certificate

Note: Each paper must have its own certificate of transmission, or this certificate must identify each submitted paper.

1. Fax Cover Sheet (1 page)
2. claims As Amended (1 page)
3. Amendment (4 pages)

This collection of information is required by 37 CFR 1.8. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.8 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICECASE *Capasso 65-104-1-19-28-7-34-13*SERIAL NO. *09/826,237*GROUP ART UNIT *2828*FILED *April 4, 2001*EXAMINER *Jeffrey N. Zahn*TITLE *Technique for Measuring Intersubband  
Electroluminescence in a Quantum Cascade Laser*

COMMISSIONER OF PATENTS

PO Box 1450

Alexandria, VA 22313-1450

SIR

Enclosed is an amendment in the above-identified application:

☒ No additional fee is required, as shown below.CLAIMS AS AMENDED

|  | CLAIMS<br>REMAINING<br>AFTER<br>AMENDMENT |       | HIGHEST<br>NUMBER<br>PREVIOUSLY<br>PAID FOR | PRESENT<br>EXTRA | RATE   | ADDITIONAL<br>FEE |
|--|---|-------|---|------------------|--------|-------------------|
| TOTAL CLAIMS FOR<br>FEE PURPOSES   | <i>4</i>                                  | MINUS | <i>11</i>                                   | <i>0</i>         | X \$18 | <i>0</i>          |
| INDEPENDENT CLAIMS   | <i>1</i>                                  | MINUS | <i>2</i>                                    | <i>0</i>         | X \$84 | <i>0</i>          |
| MULTIPLE<br>DEPENDENT CLAIM(S)<br>First presented with this<br>amendment, if<br>applicable |   |       |   |                  | X\$280 |                   |
| TOTAL ADDITIONAL FEE FOR THIS AMENDMENT  |   |       |   |                  |        | <i>\$ 0</i>       |

Please address all correspondence to Wendy W. Koba, P.O. Box 556, Springtown, PA 18081-0556.

Respectfully,

*Wendy W. Koba*  
Wendy W. Koba  
Reg. No. 30509  
Attorney for Applicant(s)  
610-346-7112Date: *10/7/03*

Capasso 65-104-1-19-28-7-34-13

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

## Patent Application

Inventor(s) Federico Capasso  
Alfred Yi Cho  
Raffaele Colombelli  
Claire F. Gmachl  
Albert Lee Hutchinson  
Arthur Mike Sergeant  
Deborah Lee Sivco  
Alessandro Tredicucci

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Serial No. 09/826,237

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Filing Date April 4, 2001

Examiner Jeffrey N. Zahn

Title Technique for Measuring Intersubband Electroluminescence in  
a Quantum Cascade Laser

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VA 22313-1450

SIR:

AMENDMENT

In response to the Office action dated July 14, 2003 (application Paper No. 9),  
please amend the above-identified application as follows:

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